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SACRAMENTO COUNTY

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10 SUPERIOR COURT OF THE STATE OF CALIFORNIA
11 COUNTY OF SACRAMENTO

12 BAY.ORG d/b/a THE BAY INSTITUTE,
13 CENTER FOR BIOLOGICAL DIVERSITY,
NATURAL RESOURCES DEFENSE
14 COUNCIL, and SAN FRANCISCO
BAYKEEPER, all non-profit organizations,

15 *Petitioners,*

16 *v.*

17 CALIFORNIA DEPARTMENT OF FISH
AND WILDLIFE, a state agency; DIRECTOR
18 OF CALIFORNIA DEPARTMENT OF FISH
AND WILDLIFE, a state agency administrator,

19 *Respondents,*

20 *v.*

21 CALIFORNIA DEPARTMENT OF WATER
22 RESOURCES, a state agency,

23 *Real Party in Interest.*

Case No. 34.2017.80002695

VERIFIED PETITION FOR WRIT OF
ADMINISTRATIVE MANDAMUS

(Code of Civil Procedure §§ 1094.5, 1085)

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1 **INTRODUCTION**

2 1. This case challenges a decision by the California Department of Fish and Wildlife
3 that threatens to drive four species of native California fish to extinction, thereby irrevocably
4 diminishing our state’s natural heritage, in the interest of constructing and operating a massive new
5 water diversion project in the San Francisco Bay-Delta.

6 2. The San Francisco Bay-Delta (Bay-Delta) Estuary is the largest estuary on the west
7 coasts of North and South America. A rich source of aquatic habitats, it supports four unique
8 Chinook salmon populations, as well as threatened populations of delta smelt and longfin smelt, and
9 numerous other native fish and wildlife species.

10 3. Fish populations relying on the Bay-Delta were once robust. Longfin smelt were once
11 among the most abundant native fishes, contributing to a commercial fishery in the Bay-Delta and
12 representing an important part of the estuary’s food web. Until the 1940s, spring-run Chinook
13 salmon numbered around 600,000, and winter-run Chinook salmon populations were as high as
14 120,000 fish until the 1960s. Delta smelt historically were another one of the most abundant fish in
15 the Bay-Delta.

16 4. The amount and timing of the fresh water that would naturally flow into the Bay has
17 long been highly altered to deliver water to urban and agricultural users. The massive State Water
18 Project (SWP) and federal Central Valley Project (CVP) are among the largest water storage and
19 diversion projects in the world. They operate a system of dams, canals, and pumping facilities,
20 which annually export an average of 4.9 million acre feet of water out of the Delta. The CVP and
21 SWP modify the flow—through water storage, diversions, and routing—of many millions of acre
22 feet more. By taking huge volumes of water out of the Delta and altering the natural conditions,
23 operations of the CVP and SWP have devastated longfin smelt, delta smelt, winter-run and spring-
24 run Chinook salmon, and other threatened and endangered species native to the Delta. These species
25 are now near extinction.

26 5. The California WaterFix (WaterFix) is the latest in a long line of water diversion
27 projects designed to export vast quantities of water before it reaches the San Francisco Bay. On the
28 scale of the English Channel Tunnel or Boston’s Big Dig, the \$17 billion project would build two

1 30-mile tunnels, each four stories high, to route water from the Sacramento River in the north Delta
2 to intake pumps in the south Delta. WaterFix would then export this water to central and southern
3 California. The three new water intakes and two tunnels under the Delta would supplement, rather
4 than replace, the CVP's and SWP's existing pumping facilities in the South Delta. This gargantuan
5 project would physically disrupt a large portion of the Delta during the nearly two decades its
6 construction would require, and its operation would further starve the Bay-Delta of freshwater flows,
7 deteriorating already damaged ecosystems and threatening the extinction of native fish species.

8 6. WaterFix's diversion of Delta water would further degrade conditions for longfin
9 smelt, delta smelt, and winter- and spring-run Chinook salmon by decreasing flows into and through
10 the Delta. Acting on already fragile and declining populations of these species, the additional
11 stressors produced by WaterFix would jeopardize the continued existence of these species.

12 7. On July 26, 2017, the California Department of Fish and Wildlife (DFW) issued a
13 permit to allow WaterFix operations to incidentally take¹ species listed as threatened or endangered
14 under the California Endangered Species Act (CESA), including the longfin smelt, delta smelt,
15 winter-run Chinook salmon, and spring-run Chinook salmon.

16 8. CESA required DFW to find that issuance of the "Incidental Take Permit" would not
17 jeopardize the continued existence of these species. (Fish & Game Code, § 2081, subd. (c).) DFW
18 was required to "make this determination based on the best scientific and other information that is
19 reasonably available" and to "include consideration of the species' capability to survive and
20 reproduce, and any adverse impacts of the taking on those abilities in light of (1) known population
21 trends; (2) known threats to the species; and (3) reasonably foreseeable impacts on the species from
22 other related projects and activities." (*Ibid.*) CESA also required the Department to ensure that the
23 impacts of the take "be minimized and fully mitigated" and that "[a]ll required measures shall be
24 capable of successful implementation." (Fish & Game Code, § 2081, subd. (b)(2).)

25
26
27 _____
28 ¹ "Take" is defined under State law to mean "hunt, pursue, catch, capture, or kill, or attempt to hunt,
pursue, catch, capture or kill." (Fish & Game Code, § 86.)

1 9. Instead of following CESA's mandates, the Department issued an incidental take
2 permit for WaterFix that would place longfin smelt, delta smelt, winter-run Chinook salmon, and
3 spring-run Chinook salmon at increased risk of extinction and jeopardize their existence. The
4 Department also failed to include adequate measures that would fully mitigate impacts and
5 successfully prevent these species from declining and failed to use the best available science in
6 making its determinations. DFW's issuance of the Incidental Take Permit for WaterFix was
7 therefore contrary to CESA, an abuse of discretion, and must be set aside.

8 **PARTIES**

9 10. Plaintiff BAY.ORG d/b/a THE BAY INSTITUTE (The Bay Institute) is a nonprofit
10 conservation organization, located in San Francisco, dedicated to protecting, restoring, and inspiring
11 conservation of the ecosystems of the Bay and its watershed. The Bay Institute's members mostly
12 live around the Bay or its watershed, regularly visit and use the Bay, the Delta, and the Central
13 Valley for recreational experience, aesthetic enjoyment, and/or livelihood in the commercial fishing,
14 sportfishing, and boating industries, and have a direct interest in the survival and perpetuation of fish
15 species and other aquatic resources. The Bay Institute regularly participates in administrative and
16 judicial proceedings to protect, enhance, and restore declining populations of native California fish
17 species that depend on the Delta, including successful efforts to list the delta smelt under the federal
18 Endangered Species Act; to invalidate and replace an insufficiently protective biological opinion for
19 delta smelt under the Endangered Species Act; and to list the longfin smelt as a threatened species
20 under the California Endangered Species Act. The Bay Institute has worked collaboratively with
21 government agencies, independent academic experts, water users, and landowners to design and
22 implement large-scale ecological restoration programs through the CALFED Bay-Delta Program,
23 the Central Valley Project Improvement Act, and other initiatives, including participation on the
24 Planning Committee for the Bay-Delta Conservation Plan. The Bay Institute submitted detailed
25 comments to DFW, jointly with the other plaintiffs herein, relating to the Department of Water
26 Resources' application to DFW for an incidental take permit related to the proposed WaterFix.

27 11. Petitioner SAN FRANCISCO BAYKEEPER (Baykeeper) is a regional nonprofit
28 public benefit corporation organized under the laws of the State of California. Baykeeper's mission

1 is to protect and enhance the water quality of the San Francisco Bay-Delta estuary for the benefit of
2 its ecosystems and human communities. Founded in 1989, Baykeeper is the premier legal and policy
3 advocate for the San Francisco Bay-Delta Estuary. Through its on-the-water presence, Baykeeper
4 patrols hundreds of miles of waterways throughout the Bay-Delta, investigating pollution problems
5 and bringing enforcement actions against polluters directly when necessary. Baykeeper also uses
6 targeted administrative and legal advocacy before state and regional regulators, playing a lead role in
7 developing sound and legal standards, permits, and regulations to protect and restore the Bay-Delta.
8 A key area of the group's focus is ensuring that state and federal environmental laws are properly
9 implemented and enforced. Baykeeper's office is located in Oakland, California. Baykeeper has
10 approximately 3,000 members and supporters, most of whom reside in the San Francisco Bay-Delta
11 watershed. Many of Baykeeper's members and supporters live and/or own property along, and/or
12 regularly visit and use the San Francisco Bay, its estuary, and the Central Valley rivers that flow into
13 the Bay and its estuary for recreational experiences and aesthetic enjoyment. Baykeeper submitted
14 detailed comments to DFW, jointly with the other plaintiffs herein, relating to the Department of
15 Water Resources' application to DFW for an incidental take permit related to the proposed
16 California WaterFix.

17 12. Petitioner NATURAL RESOURCES DEFENSE COUNCIL, INC. (NRDC) is a
18 nonprofit environmental organization with more than 346,000 members nationwide, including more
19 than 66,000 members in California. NRDC maintains an office in San Francisco, California.
20 NRDC's purpose is to safeguard the Earth: its people, its plants and animals, and the natural systems
21 on which all life depends. The organization works to restore the integrity of the elements that sustain
22 life—air, land, and water—and to defend endangered natural places. For decades, NRDC has
23 advocated extensively for the protection of the nation's waterways and wildlife, including the
24 longfin smelt, delta smelt, and winter-run and spring-run Chinook salmon. NRDC has brought and
25 intervened in lawsuits designed to ensure that CVP and SWP operations do not jeopardize the
26 continued existence of threatened and endangered fish species or adversely modify those species'
27 critical habitat. NRDC submitted detailed comments to DFW, jointly with the other plaintiffs herein,
28 relating to the Department of Water Resources' application to DFW for an incidental take permit

1 related to the proposed California WaterFix. NRDC has also long worked to protect the Delta and
2 the fish for which it provides habitat in non-litigation settings.

3 13. Petitioner CENTER FOR BIOLOGICAL DIVERSITY (CBD) is a nonprofit
4 corporation with offices in San Francisco, Los Angeles, and elsewhere throughout California and the
5 United States. CBD is actively involved in environmental protection issues throughout California
6 and North America and has over 50,000 members, including many in California, many of whom live
7 around San Francisco Bay and its estuary and within the watersheds that flow to the Bay. CBD's
8 mission includes protecting and restoring habitat and populations of imperiled species. CBD's
9 members and staff include individuals who would be affected by WaterFix, including numerous
10 members who are particularly interested in protecting the native, endangered, imperiled, and
11 sensitive species and habitats found in and along the San Francisco Bay Estuary and its tributaries,
12 which would be damaged by WaterFix operations. CBD submitted detailed comments to DFW,
13 jointly with the other plaintiffs herein, relating to the Department of Water Resources' application to
14 DFW for an incidental take permit related to the proposed California WaterFix.

15 14. Respondent CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE is a state
16 agency headquartered in Sacramento charged with conserving, protecting, and managing
17 California's fish, wildlife, and native plant resources for their intrinsic value and their use and
18 enjoyment by the public. The Department's duties include administering and enforcing CESA,
19 including issuing incidental take permits pursuant to section 2081 of the Fish and Game Code. The
20 Department approved the Incidental Take Permit for the California WaterFix that is challenged by
21 this petition.

22 15. Respondent DIRECTOR OF THE CALIFORNIA DEPARTMENT OF FISH AND
23 WILDLIFE is charged with making the final decision as to whether an incidental take permit should
24 be issued and signed the Incidental Take Permit for the WaterFix.

25 16. Real Party in Interest DEPARTMENT OF WATER RESOURCES is the project
26 proponent for the California WaterFix and the applicant for the challenged Incidental Take Permit.

1 **JURISDICTION AND VENUE**

2 17. This Court has jurisdiction over this action pursuant to Code of Civil Procedure
3 section 1094.5, or, in the alternative, pursuant to Code of Civil Procedure section 1085.

4 18. Venue is proper in this court pursuant to Code of Civil Procedure sections 393 and
5 401 because the California Department of Fish and Wildlife is headquartered and operates in the
6 City and County of Sacramento. The water intakes for the California WaterFix will be located in
7 Sacramento County, along with more than ten miles of WaterFix’s tunnels.

8 19. This petition is timely filed within the four-year statute of limitations pursuant to
9 Code of Civil Procedure sections 1109 and 343.

10 20. Petitioners have furnished a copy of this petition to the California Attorney General
11 pursuant to Code of Civil Procedure section 388.

12 21. The challenged permit is final. CESA does not provide a formal opportunity for
13 public comment on a draft incidental take permit. Petitioners provided written comments to DFW
14 regarding this project and the draft permit. To the extent applicable, Petitioners have exhausted all
15 administrative remedies prior to filing this action.

16 22. Petitioners have a beneficial interest in the continued existence of the San Francisco
17 Bay-Delta’s threatened and endangered fish populations and will be harmed by the issuance of an
18 Incidental Take Permit for the California WaterFix that does not comply with the California
19 Endangered Species Act. Petitioners have no other plain, speedy, or adequate remedy at law.

20 **STATUORY BACKGROUND**

21 23. Under the California Endangered Species Act, it is the “policy of the state” of
22 California “to conserve, protect, restore, and enhance any endangered species or any threatened
23 species and its habitat.” (Fish & Game Code, § 2052.)

24 24. “A native species . . . of bird, mammal, fish, amphibian, reptile, or plant” is
25 considered “endangered” under CESA when it “is in serious danger of becoming extinct throughout
26 all, or a significant portion, of its range” (Fish & Game Code, § 2062), and “threatened” when it “is
27 likely to become an endangered species in the foreseeable future in the absence of . . . special
28 protection and management efforts.” (Fish & Game Code, § 2067.)

1 25. CESA prohibits any person from “taking” a threatened or endangered species, unless
2 authorized by the Department of Fish and Wildlife. (Fish & Game Code, §§ 2080, 2081.) This
3 prohibition applies to state agencies, including the California Department of Water Resources and its
4 operation of the State Water Project. (*Kern County Water Agency v. Watershed Enforcers* (2010)
5 185 Cal. App. 4th 969, 980-81.)

6 26. Section 2081, subd. (b) of CESA provides that DFW “may authorize, by permit, the
7 take of endangered species, threatened species, and candidate species” if the Director determines that
8 (1) the take is incidental to an otherwise lawful activity; (2) the impacts of the authorized take “shall
9 be minimized and fully mitigated”; (3) the take permit is fully consistent with DFW regulations; and
10 (4) the applicant ensures “adequate funding to implement the [mitigation] measures required . . . ,
11 and for monitoring compliance with, and effectiveness of, those measures.” Under section 2081,
12 subd. (b)(2), required mitigation measures must also be “capable of successful implementation.”

13 27. DFW may not issue an incidental take permit if “issuance of the permit would
14 jeopardize the continued existence of the species.” (Fish & Game Code, § 2081, subd. (c).) The
15 Department must make this determination based on the “best scientific and other information that is
16 reasonably available, and shall include consideration of the species’ capability to survive and
17 reproduce, and any adverse impacts of the taking on those abilities in light of (1) known population
18 trends; (2) known threats to the species; and (3) reasonably foreseeable impacts on the species from
19 other related projects and activities.” (*Ibid.*)

20 28. CESA imposes on state agencies a broader duty to conserve listed species than
21 private parties (Fish & Game Code, § 2052), and provides that the state’s obligation to fully mitigate
22 impacts is not limited by certain requirements relating to rough proportionality (*Id.*, § 2052.1).

23 **STATEMENT OF FACTS**

24 **Longfin Smelt**

25 29. Longfin smelt (*Spirinchus thaleichthys*) is medium-sized fish that grows to
26 approximately 5.5 inches in length. They feed primarily on zooplankton.

27 30. Although longfin smelt populations occur patchily along Pacific coastal sites from
28 California to Alaska, the San Francisco Bay-Delta Estuary supports the largest longfin smelt

1 population, and this population is isolated from other populations. The Bay-Delta population is
2 pelagic, meaning they live in open waters, and estuarine-anadromous, meaning that over their life
3 cycle, they migrate through the Estuary, from fresh water to brackish or marine waters and back to
4 freshwater to spawn. Historically, they were one of the most abundant fish species in the San
5 Francisco Bay-Delta. Indeed, they were once so abundant that they contributed to a commercial
6 fishery and were likely a central component of a food web that supported other commercially
7 important fish.

8 31. Longfin smelt generally spawn between December and April; spawning locations
9 change from year to year and are generally upstream of the estuary's low salinity zone, which moves
10 in response to freshwater inflow from the Delta to the Bay. Longfin smelt in the San Francisco Bay-
11 Delta require specific environmental conditions, including sufficient freshwater flow, water
12 temperature, and salinity, in order to survive. Freshwater outflows through the Bay, particularly
13 during the winter and spring, is the most important factor predicting longfin smelt abundance.

14 32. They typically live for two years before spawning and dying. The fact that most
15 longfin smelt die after spawning makes their population highly vulnerable to poor conditions in any
16 one year (because they cannot delay spawning until good conditions return); poor conditions that
17 persist over many years can be particularly devastating. Longfin smelt are at greatest risk from poor
18 conditions at two critical times during their lifecycle: as eggs develop and larvae and juveniles move
19 downstream from the freshwater habitat where they were spawned (during late fall, winter, and
20 spring), and again as reproductively mature adults that migrate upstream to fresh water for
21 reproduction (during mid-fall through winter). Sufficient winter and spring flows are thus
22 particularly important for longfin smelt abundance.

23 33. During the 1987-1992 drought, which coincided with record levels of diversions from
24 the San Francisco Bay-Delta, longfin smelt populations in the Bay-Delta collapsed. Populations
25 rebounded significantly during and after the return of wet conditions in 1995, but, since the late
26 1990s, they have declined precipitously.

27 34. The greatest threat to longfin smelt in the San Francisco Bay-Delta Estuary is lack of
28 adequate freshwater flows from Central Valley rivers into San Francisco Bay. In recent average

1 hydrologic water years, due to water storage and diversions, less than half of the naturally occurring
2 runoff in the Central Valley has made it through the Delta to the Bay. Massive pumps serving the
3 State Water Project and Central Valley Project pull water out of the San Francisco Bay-Delta
4 Estuary, carrying the water to cities in the Bay Area, hundreds of miles south to Central Valley
5 agriculture, and to cities in arid southern California. Water diversions from the Bay-Delta watershed
6 increased significantly until the early 2000s. As much as 65% of total freshwater outflow through the
7 Delta may be diverted in some months, and, under most conditions, flows in some Delta channels
8 are actually reversed for much of the year, with water that would naturally flow toward the Bay
9 instead flowing toward the massive pumping facilities in the south Delta. Declines of longfin smelt
10 are strongly and positively correlated to declines in flow of fresh water into the Delta during the
11 winter and spring months.

12 35. Longfin smelt are also at risk of death from entrainment and impingement by export
13 pumping. Pumping changes the flow of water in the Bay-Delta, and longfin smelt can be drawn from
14 their favored habitat toward water diversion sites and then into the export system infrastructure
15 (canals, holding bays, etc.); this “entrainment” leads to almost certain death. Screens may be used to
16 try to prevent entrainment, by physically preventing the fish from entering water diversion
17 infrastructure. But longfin smelt may also be killed when they are sucked against these screens and
18 become stuck or “impinged.”

19 36. On August 8, 2007, Petitioners The Bay Institute, Center for Biological Diversity, and
20 NRDC petitioned the California Fish and Game Commission to list the longfin smelt as an
21 endangered species under the California Endangered Species Act (CESA). The petition
22 demonstrated that longfin smelt in all major estuaries in California have declined severely in the past
23 two decades and that the population in the San Francisco Bay-Delta Estuary had reached historic
24 record low levels. On March 5, 2009, the California Fish and Game Commission determined that the
25 longfin smelt should be listed as threatened under CESA.

26 37. Recent analysis of longfin smelt populations have shown that populations have
27 continued to decline since the species was listed as threatened, are currently at record low levels, and
28 are near extinction.

1 **Winter-Run Chinook Salmon and Spring-Run Chinook Salmon**

2 38. Winter-run Chinook salmon (*Oncorhynchus tshawytscha*) exhibit a unique life history
3 pattern. They hatch only in the Sacramento River, in a relatively short reach of river below Keswick
4 Dam. Adults return to spawn in the winter and spring and lay their eggs during the spring and
5 summer months. The eggs develop and hatch into fry over the summer and fall months. The juvenile
6 winter-run Chinook salmon typically begin to migrate down the Sacramento River during the fall.
7 After rearing in the Sacramento River and the Delta, they outmigrate to the ocean in the winter and
8 spring, where they usually spend two or more years before returning as adults to migrate through the
9 Bay and Delta and up the Sacramento River to spawn. Like other Chinook salmon, adult winter-run
10 die after spawning.

11 39. Winter-run Chinook salmon population estimates were as high as 120,000 fish in the
12 1960s but declined to less than 200 fish during the 1987-1992 drought. The population peaked at
13 over 17,000 fish in 2006 and then declined significantly in subsequent years. In 2014 and 2015, the
14 population experienced extremely high mortality due to lethal water temperatures below Keswick
15 Dam. DFW recently issued a preliminary estimate that only 1,123 winter run Chinook Salmon
16 returned to spawn in 2017, of which 83% were hatchery origin. This would be the second lowest
17 estimate of winter-run Chinook salmon escapement since 2003.

18 40. Winter-run Chinook salmon are one of the most endangered fish species in the United
19 States. The species has been reduced to a single population that spawns on the Sacramento River,
20 with only a few thousand fish returning each year. Winter-run Chinook salmon were listed as
21 endangered under CESA in 1989 and as endangered under the federal Endangered Species Act in
22 1994. Recent data indicates extremely low abundance levels; the species is approaching extinction.

23 41. Spring-run Chinook salmon adults typically leave the ocean to begin their migration
24 through the Delta in late January and February, spawning typically occurs in September or October,
25 and fry emerge from November to May. The downstream migration of juvenile spring-run Chinook
26 salmon is highly variable, with some juveniles staying upstream to rear for as long as a year. Peak
27 migration through the Delta occurs from November to May. Spring-run Chinook salmon typically
28 spend several years in the ocean before returning as adults to complete their life cycle.

1 42. Spring-run Chinook salmon were historically the most abundant salmon run in the
2 Central Valley and one of the most abundant along the West Coast. Between the 1880s and 1940s,
3 the Central Valley supported as many as 600,000 spring-run Chinook salmon per year. Since then
4 their populations have declined, and spring-run Chinook salmon were listed as threatened under the
5 California Endangered Species Act, as well as the federal Endangered Species Act, in 1999. In 2016,
6 DFW estimated that only 8,112 spring-run Chinook salmon returned to spawn in the Sacramento
7 River, its tributaries, and the Feather River hatchery. Declines in abundance from 2005 to 2016 in
8 Mill Creek and Deer Creek place those populations at high risk of extinction.

9 **Delta Smelt**

10 43. The delta smelt (*Hypomesus transpacificus*) is a small fish that averages 2.5 inches in
11 length. The Bay-Delta is home to the only delta smelt population on Earth. Delta smelt live for most
12 of their life span in the Delta’s low-salinity zone where saline and fresh waters mix, but they migrate
13 upstream into fresh water to spawn. Most delta smelt reproduce after one year. As a result, delta
14 smelt are extremely sensitive to disturbances in their reproductive or larval nursery habitats.

15 44. The amount and the quality of delta smelt habitat has declined dramatically due to
16 water storage, diversion, and export operations. As fresh water is stored, diverted, or exported, the
17 low-salinity zone shifts upstream from large, shallow habitats, found in Suisun Bay, to narrow, deep
18 river channels of the Delta. Those channels provide less suitable habitat than open water
19 environments for delta smelt rearing. This impact to the delta smelt’s habitat is compounded by the
20 high levels of mortality that can be caused by the export pumps in the south Delta.

21 45. The delta smelt was listed as threatened under the California Endangered Species Act,
22 as well as the federal Endangered Species Act, in 1993. In 2009, it was listed as endangered under
23 CESA. Today, delta smelt are closer to extinction than when they were listed as endangered.
24 Operations of diversion projects in recent years have resulted in high delta smelt mortality, lower
25 survival, and record low abundance. Delta smelt populations will continue to decline, and may soon
26 become extinct, under the status quo.

1 **California WaterFix**

2 46. California WaterFix is the latest proposed project to divert more water away from the
3 San Francisco Bay-Delta Estuary. WaterFix would build two tunnels, each four stories tall and 30
4 miles long—longer than the Channel Tunnel between England and France. The tunnels would divert
5 water from the Sacramento River, carrying it under the Delta directly to State Water Project pumps
6 in the south Delta. WaterFix would allow 9,000 cubic feet per second of water to be diverted from
7 the Sacramento River in the north Delta, instead of flowing into the Delta. Pumping 9,000 cubic feet
8 per second for five seconds would fill an acre of land, roughly the equivalent of a football field, with
9 water one foot deep. The new diversions from WaterFix would be in addition to continued pumping
10 at the existing CVP and SWP pumping plants in the South Delta. WaterFix is expected to cost at
11 least \$17 billion, and design and construction is estimated to take at least 17 years to complete.

12 47. WaterFix would worsen already dire conditions for longfin smelt, delta smelt, and
13 winter- and spring-run Chinook salmon populations, including by:

- 14 A. Reducing flows into the Bay-Delta. WaterFix proposes to reduce Bay-Delta
15 outflow conditions in winter months and would also reduce spring outflows
16 above 44,500 cubic feet per second. This would exacerbate an already
17 unsustainable situation for longfin smelt, delta smelt, and winter- and spring-
18 run Chinook salmon populations that rely on freshwater flows into the Bay-
19 Delta. Reduced flows would also negatively affect the longfin smelt's and
20 delta smelt's zooplankton food source. By diverting flows in the Sacramento
21 River before it reaches the Delta, WaterFix would also significantly reduce the
22 survival of juvenile winter-run and spring-run Chinook salmon that are
23 migrating down the Sacramento River past the new intakes.
- 24 B. Reducing sediment input to the Delta, increasing Delta residence time of
25 water, and increasing water temperature. WaterFix would decrease sediments
26 flowing into the Bay-Delta, which would increase water clarity, giving fish
27 less cover from predators and reducing survival of delta smelt and other
28 species. By increasing residence time of water in the Delta, WaterFix would

1 reduce the migratory cues that juvenile and adult Chinook salmon use to
2 orient during migrations. WaterFix would also increase water temperatures, in
3 combination with climate change, which would directly lead to increased
4 mortality of these species both in the Delta and below CVP and SWP
5 reservoirs upstream of the Delta. Together, increased water clarity, residence
6 time, and temperatures are likely to contribute to increased frequency and
7 magnitude of harmful toxic algal blooms, which are toxic to fish and their
8 prey.

9 C. Increasing entrainment and impingement. The reduction in freshwater outflow
10 through the Bay-Delta under WaterFix would also likely increase the
11 entrainment risk for longfin smelt at the South Delta export facilities,
12 particularly in drier years. Some juvenile winter-run and spring-run Chinook
13 salmon are likely to be small enough to pass through fish screens and be
14 entrained and killed in the new water intakes. In addition, juvenile winter-run
15 and spring-run Chinook salmon are likely to be impinged on the fish screens,
16 which would likely result in increased mortality directly due to physical
17 contact with the fish screens or indirectly due to increased predation on
18 impinged or injured salmon.

19 D. Increasing salinity. By diverting fresh water from the Sacramento River
20 before it reaches the Delta, WaterFix would allow salt water to travel further
21 upstream into the Delta, infiltrating the habitat of delta smelt, other listed
22 species, and zooplankton and other prey. Delta smelt are sensitive to salinity.
23 They generally spawn in freshwater habitats; larvae rear in freshwater habitats
24 as they gradually migrate towards the estuary's low salinity zone. Juveniles
25 typically rear in the less saline end of the low salinity zone (though they may
26 rear entirely in freshwater habitats). Thus, upstream movement of the low
27 salinity zone caused by increased diversion of fresh water is likely to constrict
28

1 and degrade the habitat of delta smelt, reduce survival and geographic
2 distribution, and increase the risk of extinction.

3 E. Loss of habitat. Construction of WaterFix is likely to prevent delta smelt from
4 occupying critical habitat upstream of the new water intakes, as fish are
5 unable to migrate past the barriers created by the new intakes.

6 F. Harm from construction. Construction of WaterFix would cause significant
7 adverse effects on species listed under CESA, including: acoustic stress from
8 extensive construction activities such as piledriving and barge traffic;
9 increased water pollution, including contaminants; and increased predation.

10 **Procedural History**

11 48. In 2013 and again in 2015 several Petitioners submitted voluminous comments
12 regarding the state and federal environmental reviews of WaterFix and its predecessor (called the
13 Bay Delta Conservation Plan). These comments identified significant adverse effects of WaterFix on
14 winter-run Chinook salmon, spring-run Chinook salmon, delta smelt, and longfin smelt.

15 49. On October 5, 2016, the California Department of Water Resources submitted an
16 application to DFW for the incidental take of nine species listed under the California Endangered
17 Species Act, including the longfin smelt, delta smelt, winter-run Chinook salmon, and spring-run
18 Chinook salmon. CDFW did not request public comment on the application for an incidental take
19 permit.

20 50. On February 24, 2017, Petitioner The Bay Institute, along with others, submitted
21 comments to the U.S. Fish and Wildlife Service and DFW explaining that WaterFix would worsen
22 conditions for delta smelt, adversely modify its critical habitat, and jeopardize its continued
23 existence.

24 51. On July 6, 2017, Petitioners submitted comments on the Incidental Take Permit
25 application to DFW, explaining that WaterFix would worsen conditions for longfin smelt and that
26 DFW should not grant the permit. Among other things, Petitioners explained that:

- 1 A. The Delta outflows identified by the application would be inadequate to
2 prevent the continued decline and extinction of longfin smelt, particularly
3 during multiple dry years;
- 4 B. Winter and spring outflows are the most important factor positively affecting
5 longfin smelt abundance, but the WaterFix application would worsen winter
6 outflows, thereby jeopardizing the species' existence;
- 7 C. The model used to predict WaterFix's effect on longfin smelt abundance
8 ignored the effect of the abundance of adult spawning members on the longfin
9 smelt's population in subsequent generations. This meant that the model
10 ignored the ability for a multi-year period of good flow conditions to
11 dramatically increase the stock. It also ignored the compounding effect of
12 multiple bad flow years on the population. Finally, the population model does
13 not account for the effect of increased entrainment mortality projected in
14 many years under WaterFix or the effect of decreased Delta water quality
15 expected under the project;
- 16 D. The application ignored the potential adverse effects of WaterFix's reduction
17 of sediments into the Bay-Delta;
- 18 E. The application ignored the negative effects of low outflow on longfin smelt
19 prey.

20 52. On July 26, 2017, Charlton Bonham, Director of DFW, issued the Incidental Take
21 Permit without responding to the concerns raised by Petitioners. The terms of the permit relied on
22 the modeling that Petitioners had identified as inaccurate, and the permit failed to require mitigation
23 measures that would fully mitigate take of longfin smelt, delta smelt, winter-run Chinook salmon,
24 and spring-run Chinook salmon.

25 CAUSE OF ACTION

26 (Violations of the California Endangered Species Act)

27 53. Petitioners hereby reallege and incorporate herein by reference the allegations
28 continued in the foregoing paragraphs.

1 54. Respondents prejudicially abused their discretion by (1) issuing an Incidental Take
2 Permit to DWR for WaterFix without complying with the requirements of the California Endangered
3 Species Act; (2) by issuing a decision unsupported by the Director’s factual findings; and (3) by
4 making factual findings not supported by the evidence. Respondents’ prejudicial abuses of discretion
5 include the following:

- 6 A. Issuing an Incidental Take Permit that that will “jeopardize the continued
7 existence” of longfin smelt, delta smelt, spring-run Chinook salmon, and
8 winter-run Chinook salmon, contrary to Fish & Game Code § 2081, subd. (c).
- 9 B. Failing to base the Incidental Take Permit’s factual findings on the “best
10 scientific . . . information that is reasonably available” (Fish & Game Code §
11 Code 2081, subd. (c)), including by:
 - 12 i. Failing to account for the fact that the longfin smelt population is at or
13 near record lows and that the status quo is a declining trend;
 - 14 ii. Failing to recognize the importance of winter freshwater Delta
15 outflows to longfin smelt abundance;
 - 16 iii. Failing to recognize the benefits to longfin smelt from high flow years
17 and instead capping protection for spring Delta outflows at 44,500
18 cubic feet per second;
 - 19 iv. Failing to analyze permitted changes to the freshwater Delta outflows
20 modeled for WaterFix, including:
 - 21 1. The effect of the Permit’s requirement that spring exports of
22 water never fall below 1,500 cubic feet per second, which may
23 result in lower outflow than modeled;
 - 24 2. The effect of the ability to waive outflow requirements in
25 future droughts under the Permit; and
 - 26 3. The potential effect of increased pumping in the South Delta
27 compared to modeled operations, which would further reduce
28 Delta outflow in the winter months;

- v. Failing to use a population abundance model that would accurately account for the abundance of adult spawning members on the size of the longfin smelt population in subsequent generations;
- vi. Failing to correctly assess the expected increase in entrainment mortality;
- vii. Failing to adequately consider the cumulative WaterFix effects on longfin smelt, including adverse effects of reduced sediment, increased entrainment, increased frequency of harmful algal blooms, and reduced food supply;
- viii. Failing to account for the effect of freshwater outflow to the Bay in the spring and summer months on delta smelt survival rates and long term abundance;
- ix. Failing to consider the effects of real time operations criteria for pumping operations in the South Delta, which were not modeled or analyzed and which contradict other criteria provided in the permit.

C. Failing to minimize and fully mitigate the impacts of take caused by WaterFix on longfin smelt, delta smelt, winter-run Chinook salmon, and spring-run Chinook salmon under Fish & Game Code § Code 2081, subd. (b)(2).

D. Failing to ensure that all mitigation measures are “capable of successful implementation” under Fish & Game Code § 2081, subd. (b)(2), including by:

- i. Failing to ensure that Biological Criterion 3, requiring that the permittee ensure that WaterFix “does not result in an overall decrease in the population size of . . . [delta smelt and longfin smelt] from pre-project conditions,” can be met, when the permit application’s own modeling and DFW’s CESA findings show that WaterFix would cause a decrease in longfin smelt abundance, and the best available science demonstrates Waterfix will reduce the abundance of delta smelt;

- 1 ii. Failing to ensure that Biological Criterion 1 (requiring that operation
2 of the new WaterFix intakes would not reduce salmon survival in this
3 reach of the river by more than five percent) and Biological Criterion 2
4 (requiring that operation of WaterFix achieve pre-project salmon
5 survival rates) can be achieved, when the permit application, permit
6 text, and CESA findings demonstrate that these criteria will not be
7 achieved under WaterFix as proposed;
- 8 iii. Failing to ensure that Old & Middle River reverse flow criteria that
9 limit pumping in the south Delta are capable of successful
10 implementation, when the Incidental Take Permit provides two
11 separate and contradictory Old & Middle River criteria for operations;
12 and
- 13 iv. Failing to ensure that Delta outflow requirements are enforceable.

14 55. If California WaterFix is allowed to proceed without adequate mitigation under the
15 California Endangered Species Act, Petitioners will suffer substantial, clear, and certain irreparable
16 injury because longfin smelt, delta smelt, winter-run Chinook salmon, and spring-run Chinook
17 salmon will continue to decline and face extinction.

18 56. Petitioners have no plain, speedy, or adequate remedy in the ordinary course of law
19 because unless the Court grants the requested writ of administrative mandamus, Respondents will
20 continue to proceed in violation of CESA.

21 **PRAYER FOR RELIEF**

22 WHEREFORE, Petitioners pray for judgment as set forth below:

23 A. For a writ of administrative mandamus or peremptory writ issued under the seal of
24 this Court and directing Respondents to:

- 25 1. Set aside and withdraw approval of the WaterFix Incidental Take Permit, and
26 2. Refrain from granting any further approvals, authorizations, or permits for WaterFix
27 until Respondents comply with CESA.

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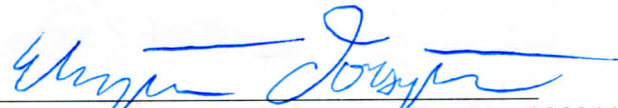
1 B. For a declaratory judgment stating that the Respondents prejudicially abused their
2 discretion in issuing an Incidental Take Permit for WaterFix without complying with the California
3 Endangered Species Act, by issuing a decision unsupported by Respondents' factual findings and by
4 making factual findings not supported by the evidence.

5 C. For Petitioners' fees and costs, including reasonable attorneys' fees and expert
6 witness costs, as authorized by Code of Civil Procedure § 1021.5, Code of Civil Procedure §
7 1094.5(a), and any other applicable provisions of law.

8 D. For such other legal and equitable relief, including preliminary and/or permanent
9 injunctive relief enjoining construction and operation of WaterFix, as this Court deems appropriate
10 and just.

11
12 DATED: September 22, 2017

Respectfully submitted,

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1 **VERIFICATION**

2 I, Gary Bobker, hereby declare:

3 I am the Director of the Rivers and Delta Program at the Bay Institute [bay.org dba The Bay
4 Institute], a non-profit corporation with offices in San Francisco. The facts alleged in the above
5 Petition are true to my personal knowledge and belief.

6 I declare under penalty of perjury under the laws of the State of California that the above is
7 true and correct and that this verification is executed on this 20th day of September, 2017 at San
8 Francisco, California.

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11 _____
12 Gary Bobker
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